

## ABSTRACT

The invention provides a system and method utilizing fluorescence spectroscopy in the ultraviolet portion of the electromagnetic spectrum to determine species and concentration of gases, solids and liquids from a substantial standoff distance. Target materials under investigation may include explosives, drugs, bio-aerosols, and controlled substances such as narcotics. The basic measuring system comprises optics, a spectrograph, a detector, and an energy source ("head" components), along with a computer and control electronics and power source.